

## Bosscher, Valerie

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**From:** Bosscher, Valerie  
**Sent:** Monday, July 12, 2021 1:41 PM  
**To:** Gehrke, John - FSA, Springfield, IL  
**Subject:** RE: Illinois USDA FSA Assistance

Thanks for the update, John. I am also planning to meet with my EPA colleagues with CAFO expertise today, then brief my management this week. I plan to send you an update, or hopefully a response, by the end of the week.  
-Val

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**From:** Gehrke, John - FSA, Springfield, IL <[john.gehrke@usda.gov](mailto:john.gehrke@usda.gov)>  
**Sent:** Monday, July 12, 2021 7:56 AM  
**To:** Bosscher, Valerie <[bosscher.valerie@epa.gov](mailto:bosscher.valerie@epa.gov)>  
**Subject:** RE: Illinois USDA FSA Assistance

Good morning Val,

I purposely did not email you while you were out. Just a brief update:

I have a call scheduled with an expert on the swine industry today. He is very familiar with Best Management Practices and also the history of Illinois laws and regulations. I will provide you with a summary of our discussion and then we can determine the best way to proceed.

Looking forward to visiting with you this week!

**John W. Gehrke**  
Farm Loan Chief  
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**From:** Bosscher, Valerie <[bosscher.valerie@epa.gov](mailto:bosscher.valerie@epa.gov)>  
**Sent:** Tuesday, June 29, 2021 1:18 PM  
**To:** Gehrke, John - FSA, Springfield, IL <[john.gehrke@usda.gov](mailto:john.gehrke@usda.gov)>  
**Subject:** RE: Illinois USDA FSA Assistance

Thanks for the update.  
Today is my last day, sorry. I'm here until ~4:30.  
-Val

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**From:** Gehrke, John - FSA, Springfield, IL <[john.gehrke@usda.gov](mailto:john.gehrke@usda.gov)>  
**Sent:** Tuesday, June 29, 2021 12:54 PM  
**To:** Bosscher, Valerie <[bosscher.valerie@epa.gov](mailto:bosscher.valerie@epa.gov)>  
**Subject:** RE: Illinois USDA FSA Assistance

Hi Val,

We just now were able to secure NRCS assistance in reviewing the manure pit design. Did you say today is your last day or tomorrow?

I am going to need to update the applicant sometime next week so I was just checking. I have an idea where we are heading on this, but it also depends on what the engineers say.

*John Gehrke*  
217 331-6873

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**From:** Bosscher, Valerie <[bosscher.valerie@epa.gov](mailto:bosscher.valerie@epa.gov)>  
**Sent:** Wednesday, June 23, 2021 11:38 AM  
**To:** Gehrke, John - FSA, Springfield, IL <[john.gehrke@usda.gov](mailto:john.gehrke@usda.gov)>  
**Subject:** RE: Illinois USDA FSA Assistance

With apologies, fixing a typo below.

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**From:** Bosscher, Valerie  
**Sent:** Wednesday, June 23, 2021 11:23 AM  
**To:** Gehrke, John - FSA, Springfield, IL <[john.gehrke@usda.gov](mailto:john.gehrke@usda.gov)>  
**Subject:** RE: Illinois USDA FSA Assistance

Hi John,

Thank you for your quick follow-up and additional information provided yesterday. For a call, here are some times that will work for me:

- Today 2:30-4:30pm Central
- Thursday 3-3:30pm Central
- Friday – 8:15-9am, 9:45-11:45am, or 2-4:30pm Central

A few follow-up questions regarding the plan drawings:

- **Is 4-inch concrete commonly specified for manure pit floors in Illinois?** In Indiana, R5 SSA Program has reviewed 2 swine barn projects for USDA-FSA, and both barns/pits had 5 inch steel-reinforced concrete floors (not counting the footers); the minimum specified is 5 inches for the steel-reinforced concrete floor slab under certain vulnerable conditions (e.g. karst, shallow bedrock, and certain other soil types) and the barns above the SSA specified 5-inch floors even though the Indiana code conditions were not actually triggered by those 2 swine operations we reviewed.
- **Can you tell me more about what you mean by “zero discharge” (in yesterday’s email)?**
  - o The intro pages reference clay liner specifications, but these are not indicated on any of the project-specific pages. **Please let me know I missed any additional protective layers below the concrete floor.**
  - o I do see the waterstop material to be installed within the walls/floor of the pit – **is the waterstop a painted on sealant between concrete layers or a geotextile fabric?**
- **Will there the roof extend over the pump-out area?**

Regarding depth to groundwater –

- The soil boring does not say anything about moisture or groundwater, so I'm guessing it likely was dry. **Can the engineer/geologist confirm there was no apparent groundwater by the end of boring at 13 ft bgs?**
- From the information yesterday, static water levels in nearby wells range include 8 ft (Kruse farm installed by Albrecht, located ~0.5 mi E-NE of the barn site) and 35 ft (Fanter farm installed by Dowell, located ~0.25mi N-NE of the barn site). I didn't see static water levels on the other well logs, such as the Friend farm installed by Henry in 1997 which I think is the closest to the barn site.

To your question below, thank you for summarizing the content of the public comments. I understand general concerns about odor/dust/etc. are common with animal operations. For the public concerns about groundwater/aquifer, those would be good to see (or a summary particularly of any specific facts that the public raised).

I plan to look further into the Illinois AFO/CAFO and manure land application requirements, but for reference I'm attaching a set of recommendations that were made for one of the swine operations that we reviewed in Indiana.

Thanks,  
Val

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**From:** Gehrke, John - FSA, Springfield, IL <[john.gehrke@usda.gov](mailto:john.gehrke@usda.gov)>  
**Sent:** Tuesday, June 22, 2021 1:19 PM  
**To:** Bosscher, Valerie <[bosscher.valerie@epa.gov](mailto:bosscher.valerie@epa.gov)>  
**Cc:** Bielanski, Jennifer <[Bielanski.Jennifer@epa.gov](mailto:Bielanski.Jennifer@epa.gov)>  
**Subject:** RE: Illinois USDA FSA Assistance

Valerie,

I want to provide additional information regarding the proposal:

- There will be a composting facility on site. It will have 4 bays, concrete floor (sloped inward) and walls and it will be covered.
- I have attached additional information regarding wells in the vicinity
- The integrator will be assisting the producer with a nutrient management plan. Neither the IL EPA or the Illinois Department of Agriculture require one for a facility labeled as an Animal Feeding Operation (AFO). This operation would be less than 1000 animal units.

We have had public concern with the possible effects to the groundwater / aquifer. The pit is designed as a zero discharge facility.

I would like to discuss this project with you. Could we possibly schedule a time for a call?

**John W. Gehrke**

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**From:** Gehrke, John - FSA, Springfield, IL  
**Sent:** Tuesday, June 15, 2021 1:29 PM  
**To:** 'Bosscher, Valerie' <[bosscher.valerie@epa.gov](mailto:bosscher.valerie@epa.gov)>  
**Cc:** Bielanski, Jennifer <[Bielanski.Jennifer@epa.gov](mailto:Bielanski.Jennifer@epa.gov)>  
**Subject:** RE: Illinois USDA FSA Assistance

Hi Valerie,

I have responded in red to the questions I can answer. Attachments have been included to address the soil boring, pit design, and manure easement.

I hope this helps and I look forward to discussing this with you soon.

*John Gehrke*  
217 331-6873

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**From:** Bosscher, Valerie <[bosscher.valerie@epa.gov](mailto:bosscher.valerie@epa.gov)>  
**Sent:** Tuesday, June 15, 2021 11:41 AM  
**To:** Gehrke, John - FSA, Springfield, IL <[john.gehrke@usda.gov](mailto:john.gehrke@usda.gov)>  
**Cc:** Bielanski, Jennifer <[Bielanski.Jennifer@epa.gov](mailto:Bielanski.Jennifer@epa.gov)>  
**Subject:** RE: Illinois USDA FSA Assistance

Good morning, John,

As the Region 5 Sole Source Aquifer coordinator, I can assist you with the SSA project review.

To assist with my review, could you provide available information to address the items below?

- What are the red outlines and red "X" on the maps in first 5 pages of the "Scan 1" pdf that you had attached?  
*Those were simply free hand markings I made in google maps to indicate to the State Historic Preservation Agency where the barn was to be located. These show the property, not where the barn is located on the property.*
- Construction description for the barn's manure pit (e.g. reinforced concrete floor/walls?) and location/construction for any mortality management and composting areas. *See attached plans. I did not include these in the original scans due to certain privacy issues with the public.*

- Depth to groundwater (e.g., below ground surface)? Will the perimeter drain be routinely pumped out? I have attached the soil boring report. I received this response from the engineer: Regarding the perimeter tile, I believe the site allows the perimeter tile to gravity flow away from the building so that it will be continuously drained. If that is not feasible, then a sump will be place at a corner of the barn and a pump with float will be placed in the sump to pump water away from the building as needed. I received this response from the integrator: I am not 100% sure what the slope will be around the barn once complete but it will either have a drain to daylight or if that is not possible it will have a sump pump to pull the water away from the barn perimeter. This is part of the IDOA regulations for sites with perimeter tiles as well as quarterly monitoring of the water quality from the perimeter tile.
- Are there any well(s) on-site or within ~0.25 miles of the proposed barn or land application sites? [Illinois' Source Water Assessment Protection Program map](#) shows that the nearest oil/gas wells are >1 mile away from the proposed barn (as per attachments B and C in "Scan 1), and the nearest ISGS water wells are ~0.25 miles from the proposed barn. There are irrigation wells within a mile of the site.
- Were any negative/opposing public comments / letters received by the state during their review/permitting process? There were negative comments received by the State regarding concerning potential air quality and water quality concerns. I believe they were more general comments rather than specifics. People wrote letters to the editor. Do you want to see those? My understanding that there was a discussion at the county board requesting set backs be increased in the county. The proposal died for lack of a second by a board member.
- Regarding "The manure will be injected directly into the soil of the adjacent farmland by a commercial applicator at approved agronomic rates.", are there specific addresses (e.g. approved by the state) or will all manure land application be only on the Fanter property? Please indicate the anticipated number of land application sites, whether they are above the Mahomet Aquifer, whether they have tile drains, and if there are any wells on-site. The land is adjacent to the building site and is approximately 548 acres. It is not tiled, but it does contain an irrigation well. Being adjacent to the site, the land is located above the aquifer.

Please let me know if you'd like to discuss or have any questions. I should be able to get back to you within a couple of weeks after your response, noting that there may be some delay on my end in late June/early July due to scheduled vacation.

Thank you for your assistance,  
Val

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**From:** Bielanski, Jennifer <[Bielanski.Jennifer@epa.gov](mailto:Bielanski.Jennifer@epa.gov)>  
**Sent:** Friday, June 11, 2021 3:44 PM  
**To:** Bosscher, Valerie <[bosscher.valerie@epa.gov](mailto:bosscher.valerie@epa.gov)>  
**Subject:** FW: Illinois USDA FSA Assistance

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**From:** Gehrke, John - FSA, Springfield, IL <[john.gehrke@usda.gov](mailto:john.gehrke@usda.gov)>  
**Sent:** Friday, June 11, 2021 11:17 AM  
**To:** Bielanski, Jennifer <[Bielanski.Jennifer@epa.gov](mailto:Bielanski.Jennifer@epa.gov)>  
**Subject:** RE: Illinois USDA FSA Assistance

The referral information is attached. This may be more information than you need.

Thank you so much for your assistance!

**John W. Gehrke**

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